

ChemComm

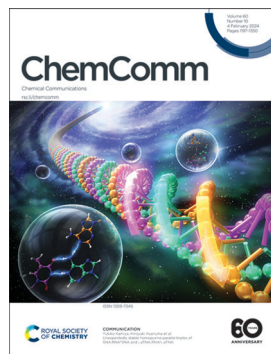
Chemical Communications

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IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 60(10) 1197-1350 (2024)



Cover

See Yukiko Kamiya, Hiroyuki Asanuma *et al.*, pp. 1257–1260. Image reproduced by permission of Hiroyuki Asanuma from *Chem. Commun.*, 2024, 60, 1257.



Inside cover

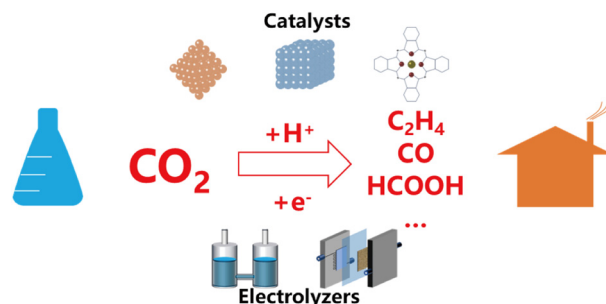
See Diego Sorbelli, Leonardo Belpassi and Paola Belanzoni, pp. 1222–1238. Image reproduced by permission of Diego Sorbelli from *Chem. Commun.*, 2024, 60, 1222.

HIGHLIGHT

1207

Catalysts and electrolyzers for the electrochemical CO₂ reduction reaction: from laboratory to industrial applications

Shiqian Du, Pupu Yang, Mengyu Li, Li Tao, Shuangyin Wang* and Zhao-Qing Liu*

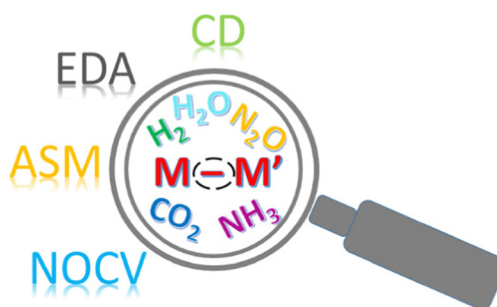


FEATURE ARTICLES

1222

Cooperative small molecule activation by apolar and weakly polar bonds through the lens of a suitable computational protocol

Diego Sorbelli*, Leonardo Belpassi* and Paola Belanzoni*



Environmental Science: Atmospheres

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Fundamental questions
Elemental answers

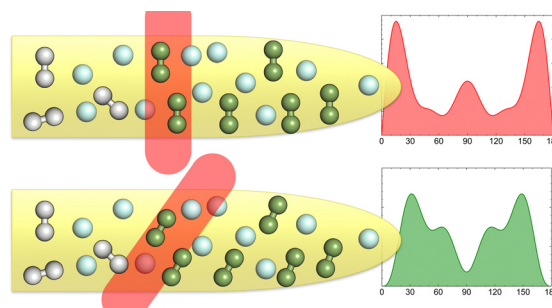


FEATURE ARTICLES

1239

Quantum stereodynamics of cold molecular collisions

Naduvalath Balakrishnan,* Pablo G. Jambrina, James F. E. Croft, Hua Guo and F. Javier Aoiz

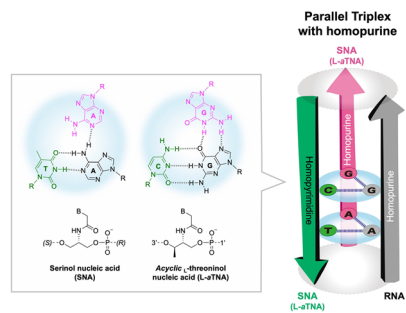


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1257

Unexpectedly stable homopurine parallel triplex of SNA:RNA*SNA and L-aTNA:RNA*L-aTNA

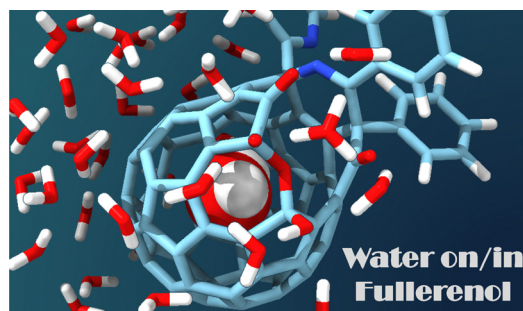
Yukiko Kamiya,* Siyuan Lao, Jumpei Ariyoshi, Fuminori Sato and Hiroyuki Asanuma*



1261

Open-[60]fullerenols with water adsorbed both inside and outside

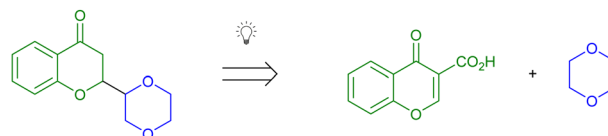
Yoshifumi Hashikawa,* Shumpei Sadai, Yuka Ikemoto and Yasujiro Murata*



1265

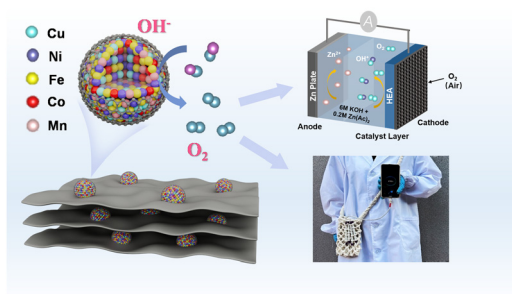
Decarboxylative photoinduced ligand-to-metal charge transfer reaction: synthesis of 2-substituted chroman-4-ones

Mohsen Monirialamdari and Anna Albrecht*



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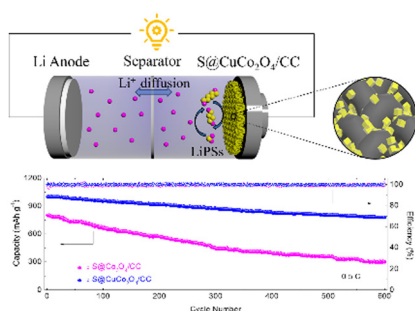
1269



A multi-layer reduced graphene oxide catalyst encapsulating a high-entropy alloy for rechargeable zinc-air batteries

Leyi Gao, Xiongwei Zhong,* Zhitong Li, Junjie Hu, Shuyu Cui, Xingzhu Wang* and Baomin Xu*

1273

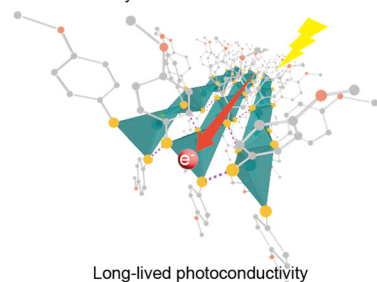


Design of a sulfur host with CuCo_2O_4 supported on carbon cloth for lithium sulfur batteries

Yinuo Li, Dan Liu, Yuan Tian* and Cheng Wang

1277

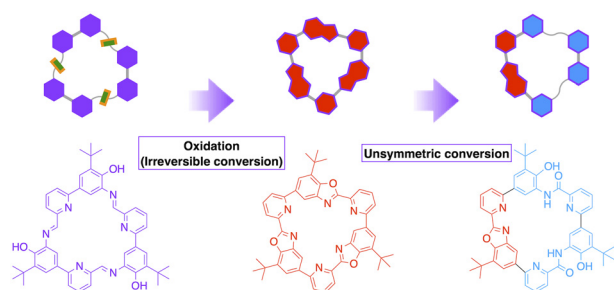
CdS-chain arrays assembled via $\text{S} \cdots \text{S}$ interactions



Engineering of CdS-chain arrays assembled through $\text{S} \cdots \text{S}$ interactions in 1D semiconductive coordination polymers

Asuka Nishibe, Ryohei Akiyoshi,* Akinori Saeki, Kazuyoshi Ogasawara, Takaaki Tsuruoka and Daisuke Tanaka*

1281



Synthesis of a macrocyclic oligomer of pyridylbenzoxazole utilizing dynamic covalent bonds and its unsymmetric conversion

Yuya Hokimoto and Takashi Nakamura*

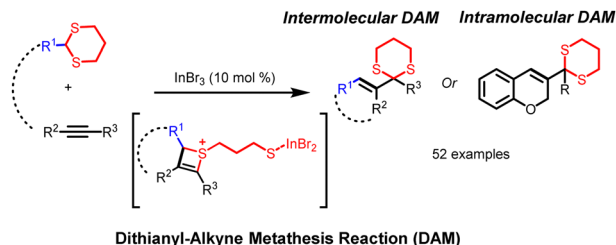


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Indium-catalyzed inter- and intramolecular dithianyl–alkyne metathesis reactions

Xi Chen, Rui-peng Li, Peng Long, Yuxi Tang, Jia Li and Shouchu Tang*

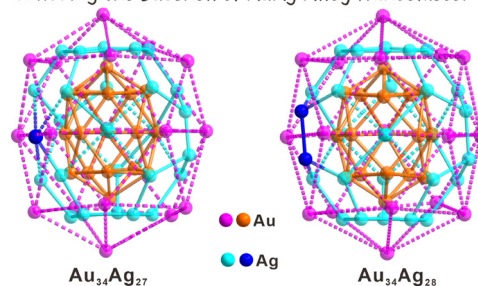


1289

Tailoring the subshell and electronic structure of an atomically precise AuAg alloy nanocluster

Guocheng Deng, Taeyoung Ki, Xiaolin Liu, Yuping Chen, Kangjae Lee, Seungwoo Yoo, Qing Tang,* Megalamane S. Bootharaju* and Taeghwan Hyeon*

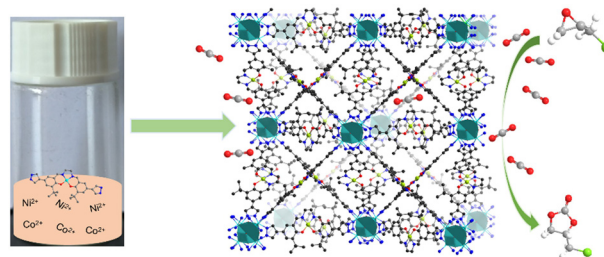
Tailoring the Subshell of AuAg Alloy Nanocluster



1293

Two highly stable isorecticular M₈-pyrazolate (M = Co, Ni) metal–organic frameworks for CO₂ conversion

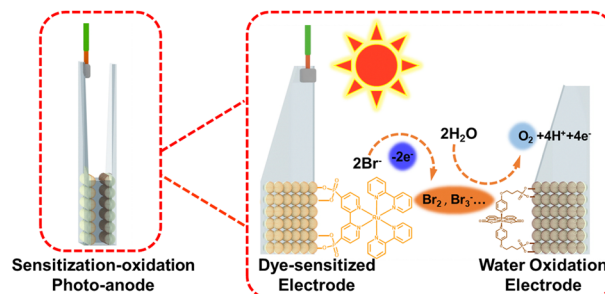
Fa-Xue Ma, Lei-Yan Lyu, Jiawei Chen, Tao Huang, Teng Zhang* and Rong Cao*



1297

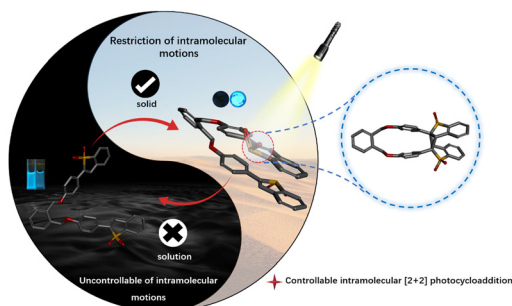
A dye sensitized photosynthesis cell for stable water oxidation mediated by photo-generated bromine

Ling Fei, Xiao Guo, Dan Liang, Lei Lei and Degao Wang*



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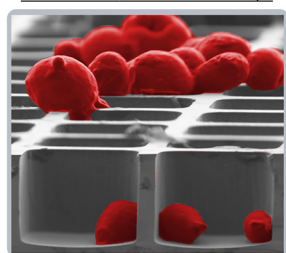


Photoinduced fluorescence modulation through controllable intramolecular [2+2] photocycloaddition in single molecules and molecular aggregates

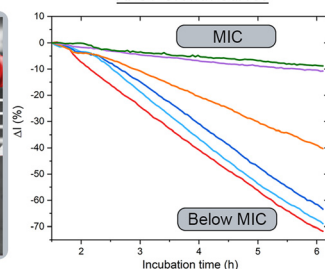
Yuzhen Wu, Xinni Ping, Chuangye Yao, Penglei Wu, Zhengdong Han, Xin Peng, Jiale Zhan, Hui Feng* and Zhaosheng Qian*

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Candida auris on Photonic Si Chips



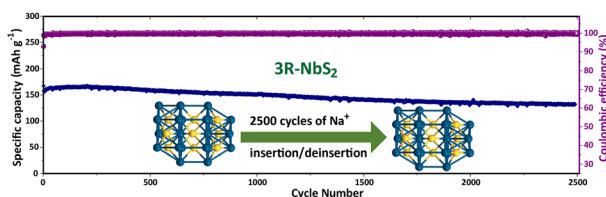
AFST Growth Curves



Photonic Si microwell architectures for rapid antifungal susceptibility determination of *Candida auris*

Christopher Heuer, Xin Jiang, Gali Ron, Orna Ternyak, Thomas Scheper, Janina Bahnemann and Ester Segal*

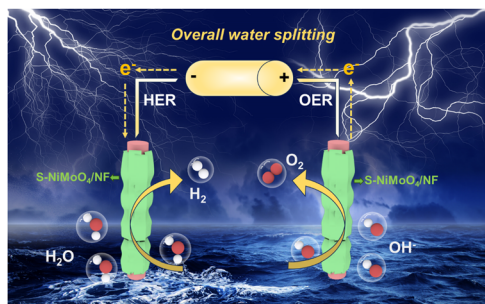
1309



3R-NbS₂ as a highly stable anode for sodium-ion batteries

Savithri Vishwanathan, Pallelappa Chithaiah, H. S. S. Ramakrishna Matte* and C. N. R. Rao*

1313



An oxygen vacancy-modulated bifunctional S-NiMoO₄ electrocatalyst for efficient alkaline overall water splitting

Jiarong Mu, Ping Bai, Peng Wang, Zhinan Xie, Yihua Zhao, Jianfang Jing* and Yiguo Su*

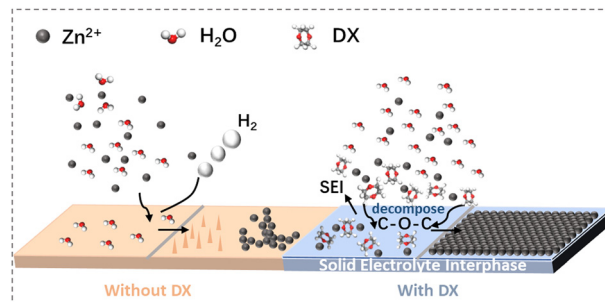


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A low concentration electrolyte additive for constructing solid–electrolyte interphase on a Zn metal anode for aqueous batteries

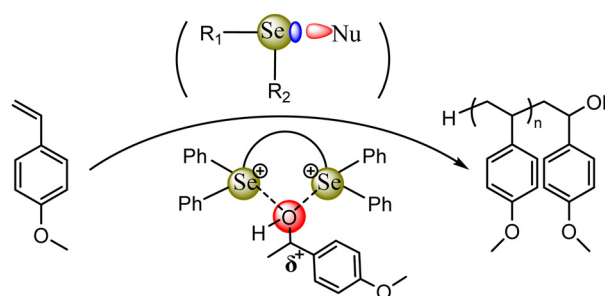
Guoli Zhang, Jiaqi Zhu, Kuo Wang, Qianrui Li, Wenchao Fu, Xiao-Xia Liu and Xiaoqi Sun*



1321

Bidentate selenium-based chalcogen bond catalyzed cationic polymerization of *p*-methoxystyrene

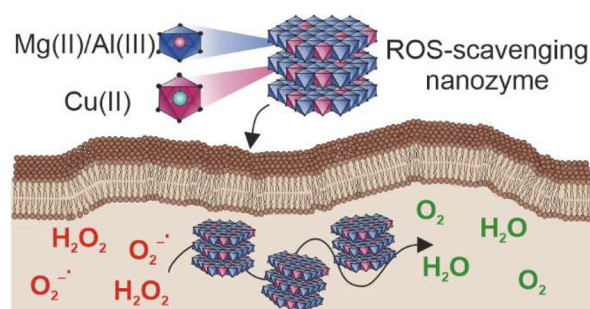
Luya Cao, Hao Chen, Hongjun Fu, Ji Xian, Hongzhang Cao,* Xiaobo Pan and Jincai Wu*



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Reduction of intracellular oxidative stress with a copper-incorporated layered double hydroxide

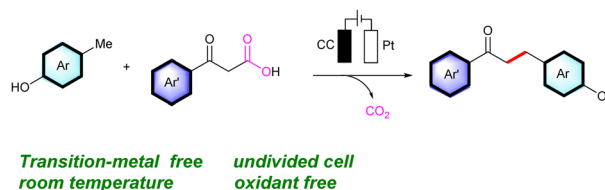
Adél Szerlauth, Tamara Madácsy, Gergely Ferenc Samu, Péter Bíró, Miklós Erdélyi, Gábor Varga, Zhi Ping Xu, József Maléth and István Szilágyi*



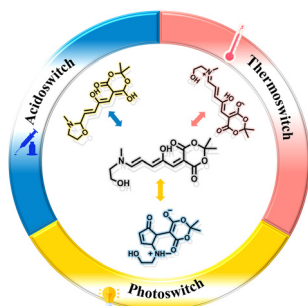
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Electrochemical decarboxylative alkylation of β -ketoacids with phenol derivatives

Shan Wang, Zhaotian Wu, Junqiang Li, Yujun Zhu, Shaojun Zheng, Chunhui Jiang* and Hongfei Lu*



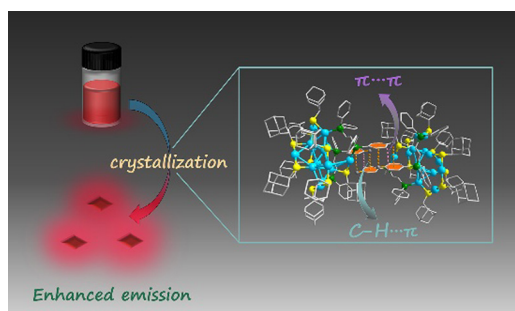
1333



Enriched switching in a donor–acceptor Stenhouse adduct *via* reversible covalent bonding

Peng Xuan Zheng, Song Lin Ou, Lei Yu Qu, Ying Zhang, Shi Qing Jiang, Xiang Li, Jun Xiong Wan, Min Zhang* and Xin Bao*

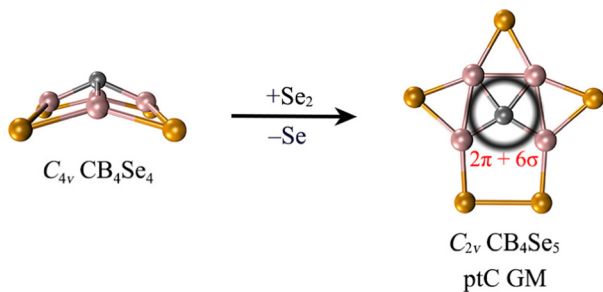
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[Au₁₄(2-SAdm)₉(Dppe)₂]⁺: a gold nanocluster with a crystallization-induced emission enhancement phenomenon

Dong Liu, Guiqi Gao, Yongyu Zhang, Qinzhen Li, Sha Yang, Jinsong Chai,* Haizhu Yu* and Manzhou Zhu*

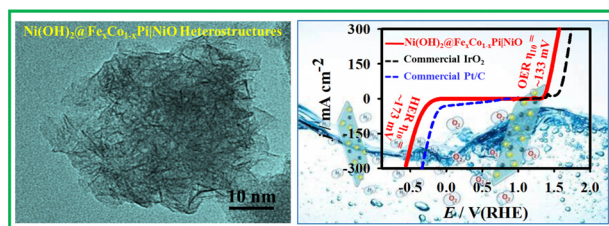
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CB₄Se₅: a planar tetracoordinate carbon CB₄ core stabilized by peripheral Se/Se₂ bridges

Li-Xia Bai, Rui Sun, Yan-Bo Wu and Jin-Chang Guo*

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Ni(OH)₂ nanosheets decorated with FeCoPi on NiO heterostructures: tunable intrinsic electronic structures for improved overall water splitting

Sundaramoorthy Marimuthu, Ayyavu Shankar and Govindhan Maduraiveeran*

